Comments from Skretting regarding the Interim Final Report of the Aquaculture Working Group

Submitted by Phillip Gillmore through Anthony Murphy

The only viable Option from the feed company viewpoint is Option A. My further comments refer to this Option only.

(a) Acceptable, provided USDA recognises that aquatic animals have very different nutrient requirements from terrestrial animals.

(b) Acceptable, however, USDA need to define what is natural for each aquatic species so that feed manufacturers have some guidelines to follow.
For example would this restrict the amount of vegetable protein that a carnivorous aquatic animal receives, or vice versa, would this restrict the amount of animal protein a herbivorous aquatic animal receives ?. This is an important issue when words like "greatest practical extent" are part of the standard.

(c) Acceptable.

(d) Unacceptable. There is insufficient definition in the paragraph. It implies that aquaculture feeds MUST be composed of ingredients which are organically produced. This would exclude materials derived from wild fish sources referred to in subsequent paragraphs since these are not organically produced in any sense of the word organic, they are wild production. Not allowing fish products for carnivorous fish is obviously contrary to (b) as well. The allowable non-synthetic and synthetic substances should be listed in the standard as they may well differ from those allowed for terrestrial animals. There is a lot we don't know about fish nutrition and we should use caution rather than expose fish to health and welfare risks.

(e) Certification of wild fish is the accepted route in Europe, so no issue with this. However, they are not certified as organic, only that they are acceptable for organic aquaculture production. In my view it is impossible to certify wild fish as organic as no aspect of their life is controlled in any way, they are simply harvested from the wild. Therefore, the European model could be utilised here to define suitable fishmeal and fish oil for organic aquaculture. The feeding of whole, chopped or minced organic fish is unacceptable from a bio-security viewpoint as this could introduce pathogens into the organic fish stock, it should be removed.

(f) This is the difficult one !. The problem of certifying fisheries as sustainable has not yet been resolved to the satisfaction of any organic certifiers. The Marine Stewardship Council (MSC), a private, non-audited body is not necessarily the right certifier. What about FAO or ICES ? Are these bodies acceptable ? This will probably take many years to sort out before it becomes acceptable for organic certifiers. In the meantime, the European organic bodies have decided that the use of fish offal meal and fish offal oil from wild caught fish destined

for human consumption can be used for organic aquaculture. This has allowed organic aquaculture to become established while the scientists and certifiers decide what sustainability actually means, and who should control it, and how it should be audited.

(g) (1) It is unreasonable to restrict certified organic whole fish in the feed of organic aquatic animals if this is what they would naturally consume (see (b)).

(g) (2) Acceptable, This is the standard practice in organic aquaculture in Europe.

(h) Acceptable. It is sound science not to feed same species to same species, good bio-security.

(i) This is suggesting feeding organically farmed fish silage back to organically farmed fish. Surely this cannot be correct from a bio-security viewpoint ? There is the possibility of recycling pathogens within organic aquaculture. This should be disallowed.

(j) Acceptable, provided the substrates used by the microbial process does not contain genetically modified materials, and that the oil is not solvent extracted.

(k) Further definition of volatile organic solvents is required - I thought these were not allowed in organic processes.

(l) Acceptable, need a list of which organic pigmenting sources are allowed by US FDA. Note that certain pigmenting carotenoids have a nutritional requirement, especially in young fish and broodstock fish, which must be met on health and welfare grounds. I presume synthetic pigments are prohibited, which is correct, but should be stated.

(m) Acceptable for ponds only.

(n) (1) Antibiotics or other veterinary products may need to be proscribed to organic fish by a veterinarian on health and welfare grounds, for example if the fish have a treatable disease. Prohibiting their use may be detrimental to fish health, and cause unnecessary suffering. Hormones should be prohibited.

(n) (2) Often we may not know the nutritional requirements for vitamins and minerals for the aquatic species being organically farmed, as these may not have been determined. So nutritionists may add a "safe" level, whether this is above the level needed for adequate nutrition and health may only be known later, and so cannot be defined at the time. Better to say that vitamins and minerals are permitted.

(n) (3) Acceptable, provided they are from organically farmed mammalian or poultry sources.

(n) (4) Acceptable

(n) (5) Acceptable

(n) (6) Acceptable, (see (l)).

(n) (7) Acceptable, but this should also apply to microbial feedstock.

(n) (8) Acceptable.

(Fish Meal and Oil from Wild Fish) Only acceptable option is Alternative A, as many aquatic animals use wild fish as natural feed, and Alternative B (using fish meal and oil as an additive/supplement) would not provide sufficient fish meal or oil for these animals (see paragraph (b)).

(Contaminants) Contaminants are not really defined, they should be. There are opportunities to generally reduce contaminants in organic feeds for aquatic animals by, reducing the feed oil level, allowing the use of organically grown vegetable oils, and replacing some fishmeal with organic vegetable proteins. There is good peer-reviewed information by Bell (Stirling University) on all these issues. Additionally, cleaning fish oils using approved methods could also be considered, although this is not widespread at the present time.

(Mammalian and Poultry Slaughter By-Products) Acceptable, provided they are by-products of organically reared animals or poultry, but USDA need to get the ethics of using such products sorted out.

Consultation-The already established organic aquaculture standards bodies in Europe (Naturland, Soil Association, French AB, and Organic Food Federation) do not appear to have been consulted. There is much knowledge to be gained from these bodies, and many of the more difficult issued have already been addressed and solved (at least in the interim). I would recommend this consultation.